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Catalogue of HYMENOPTERA in the Collection of the Entomological Society of Philadelphia, from Colorado Territory.

BY E. T. CRESSON.

(*Continued from page* 313.)

Fam. FORMICIDÆ.

Genus FORMICA, Linn.

1. Formica rufa, Linn.

Formica rufa, Linn. Faun. Suec. n. 1721; Syst. Nat. i, p. 962. Smith, Cat. Brit. Aculeate Hymen. p. 4 (with full synonymy).

Two ♀, seven ☿, one ♂, specimens.

2. Formica aterrima, n. sp.

Black, opaque, abdomen shining; antennæ and legs tinged with fuscous; wings tinged with fuliginous, darker at base.

Male.—Black, opaque; head and thorax clothed with a short, suberect, palish pubescence; mandibles tinged with piceous; frontral area triangular and very slightly shining; clypeus prominent, faintly carinate down the middle, the anterior margin entire; antennæ black, the flagellum tinged with fuscous. Wings tinged with fuliginous, darker towards the base; neuration as in *F. rufa* ♂. Legs tinged with fuscous, sericeous. Abdomen ovate, piceous-black, shining, somewhat sericeous, the extreme apex luteous; scale of the petiole subquadrate, more or less emarginate above. Length 4½ lines.

Five specimens. Closely resembles *F. rufa* ♂, but is at once distinguished by the black legs; the antennæ are rather more robust, and the wings much darker towards the base; the body is similarly shaped, but more robust.

3. Formica herculanea, Linn.

Formica herculanea, Linn. Faun. Suec. n. 1720; Syst. Nat. i, p. 962. Smith. Brit. Mus. Cat. Hym. vi, pp. 10 & 53 (with full synonymy).

Five ♀, five ☿, seventeen ♂, specimens.

Genus MYRMICA, Latr.

1. Myrmica occidentalis, n. sp.

Ferruginous; head and thorax densely striated; wings hyaline; abdomen subglobose, polished, the segments fringed with glittering pubescence.

Female.—Ferruginous; head and thorax opapue, thinly clothed with a pale glittering pubescence, and densely striated longitudinally, the striæ on the thorax much the finest; head large, quadrate, much

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broader than the thorax; the cheeks behind and the clypeus in front, with very long, pale-yellowish pubescence; mandibles large, tinged with piceous, and densely striated longitudinally; eyes small, ovate; ocelli minute; antennæ pale ferruginous, the flagellum clothed with short, pale glittering pubescence, gradually thickened towards the tip. Thorax finely aciculate, the sutures tinged with piceous; metathorax transversely striated, with two acute spines on the posterior face. Wings hyaline, tinged with yellowish at base; nervures yellowish-testaceous, stigma fuscous; anterior pair with one complete marginal, two complete submarginal and one complete discoidal cells. Legs clothed with short pale glittering pubescence. Abdomen subglobose, smooth and polished, tinged with honey-yellow, and, as well as the nodes, thinly clothed with short, pale glittering pubescence, more dense on the apical margins of the segments both above and beneath; first node elongate, subpetiolated, the posterior half suddenly protuberant and very prominent, the upper anterior edge with a small central tubercle; second node subglobose, broader than the first, both nodes opaque and minutely sculptured. Length 5 lines; expanse of wings 8 lines.

Worker.—Colored and sculptured similar to the ♀, but the head is very large, more than twice the width of the thorax and larger than the abdomen; the thorax is narrow and much strangulated about the middle; the spines of the metathorax are longer and more acute. Length 3 lines.

Two ♀, two ☿, specimens.

2. Myrmica seminigra, n. sp.

Black, clothed with rather long pale pubescence; mandibles, antennæ, most of legs, and the abdomen, fulvo-testaceous; wings hyaline.

Male.—Head dull black, rather thickly clothed with long pale pubescence, under a very strong lens, minutely aciculate; eyes moderate, ovate; ocelli large; mandibles rather large, dull ferruginous, and rather coarsely striated; antennæ about as long as the head and thorax, fulvo-testaceous, darker at base. Thorax somewhat shining, black, sometimes more or less piceous, clothed with long pale pubescence; sutures of the thorax, tegulæ and posterior portion of the scutellum, fulvo-testaceous; metathorax with two short, very obtuse tubercles on the posterior face. Wings as in *M. occidentalis* ♀. Legs pale piceous, clothed with pale pubescence, the tibiæ and tarsi fulvo-testaceous. Abdomen ovate, sometimes almost globose, fulvo-testaceous, smooth and polished, and, as well as the nodes, clothed with pale pubescence especially on the apical margins of the segments; the nodes much as in *occidentalis*, except that they are shining, the first node is tinged

with piceous, not so suddenly prominent and the upper surface is more rounded and not tuberculate. Length 4 lines; expanse of wings 7 lines.

Fourteen specimens. This may be the ♂ of *M. occidentalis*. A specimen in the collection of the Society from Texas, differs only by having both nodes of the abdomen blackish.

Fam. MUTILLIDÆ.

Genus MUTILLA, Linn.

1. *Opaque species.**

a.—Head and thorax entirely black; abdomen more or less reddish.

1. **Mutilla Orcus**, n. sp.

Large, black; abdomen above, except base, rufo-ferruginous.

Female.—Deep black, with coarse black pubescence, and large deep punctures; head not wider than the thorax; eyes small, round, entire, very convex and polished; antennæ piceous-black at base, the flagellum brownish and sericeous. Thorax slightly narrowed behind and abruptly truncate; the excavations on the sides, for the reception of the legs, are smooth and shining, the posterior truncation less coarsely punctured and somewhat shining. Legs black, with long black pubescence; the tibiæ with short black spines. Abdomen large, ovate, coarsely punctured, black; most of the large basal segment and all the remaining segments above, clothed with a long, dense, rufo-ferruginous pubescence; the node and the base and sides of the large basal segment, as well as the venter, clothed with black pubescence; the large ventral segment is sparsely pubescent and shining; in one specimen the lateral apical fringe of the ventral segments is reddish; the node or small basal segment is rather small, circular at tip, narrowed towards the base, and depressed above, with a short stout tubercle on each side at extreme base. Length 9—9½ lines.

Male.—Elongate; colored similar to the ♀, but is much less coarsely punctured, and the antennæ much longer; the metathorax is large and rounded behind, covered with dense, rather coarse punctures, and clothed, rather sparsely, with long black pubescence. Wings ample, blackish, paler at tips; marginal cell short, not exceeding the tip of

* The abdomen of some of the male species is more or less shining, especially of *M. hexagona* Say, but the thorax is always more or less opaque, and roughly sculptured and hairy. In the next division—*Smooth, shining species*—I have placed those species which are distinguished by their smooth, shining, unicolorous appearance, their form mostly long and slender, their abdomen petiolate, and their wings hyaline or slightly clouded; the females of the species belonging to this last division are unknown to me.

the third submarginal cell, the apex broadly truncate; the three submarginal cells distinctly defined, the first longer, and the second as long as the marginal; the second much narrowed towards the marginal, and receiving the first recurrent nervure before the middle; the third submarginal cell subtriangular, much narrowed beneath so that the side nervures become almost confluent with the second recurrent nervure. Legs black, punctured, clothed with black pubescence. Abdomen ovate, gradually narrowed to the tip, closely and rather finely punctured; apical margin of the large basal segment, and all the remaining segments, as well as the lateral apical fringe of the ventral segments, densely clothed with long rufo-ferruginous pubescence, the remainder with black pubescence, sparse on the venter which is shining; the node rather larger than in the ♀, coarsely punctured, with a large flattened, subacute tooth beneath; second ventral segment somewhat concave on the middle, on which there is a deep ovate puncture. Length 10 lines; expanse of wings 16½ lines.

Two ♀, one ♂, specimens. Easily recognized by the large size, the jet black color, with most of the abdomen above rufo-ferruginous. This species occurs also in Texas.

2. Mutilla macra, n. sp.

Slender, black, densely pilose; abdomen petiolate, the large basal segment above orange-yellow; wings blackish, third submarginal cell obsolete.

Male.—Elongate, rather slender, black, with long, dense, coarse, black pubescence, and close, rather rough punctures; eyes small, round, entire and very convex; mandibles rufo-piceous at base; antennæ black, the flagellum sericeous. Thorax slightly narrowed behind, the metathorax rounded, somewhat abrupt behind and reticulate with coarse punctures. Wings blackish, with two or three pale streaks beneath the stigma; marginal cell broadly truncate at tip, not exceeding the tip of the third submarginal cell; two distinct submarginal cells, the first about as long as the marginal, the second a little short, much narrowed towards the marginal and receiving the first recurrent nervure near the base; third submarginal cell subrhomboidal, indistinctly defined, the outer nervure being obsolete. Legs black, with black pubescence. Abdomen petiolate, ovate, much narrowed towards the tip, black, with long, dense, black pubescence above, shining beneath; large basal segment above orange-ferruginous, with pubescence of the same color, and close, rather deep punctures; the node rather elongate, swollen at tip, coarsely rugose, the base depressed, with a short stout tubercle on each side; venter shining and sparsely pubescent, the second segment closely punctured. Length 5 lines; expanse of wings 7 lines.